

CLAIMS

1. An image forming apparatus having a first
image formation mode for forming an image on an image
5 bearing member by using developer under a first
predetermined image forming condition and a second
image formation mode for forming an image on an image
bearing member by using developer under a second image
forming condition which is different from the first
10 predetermined image forming condition and is set so
that an amount of consumption of developer with
respect to an identical image in the second image
formation mode is smaller than that in the first image
formation mode, the apparatus comprising:

15 storing means for storing information on an
amount of usage of the image bearing member, and
control means for changing the second image
forming condition in the second image formation mode
depending on the information stored in said storing
20 means.

2. An apparatus according to Claim 1, wherein
said image forming apparatus further comprises
discrimination means for discriminating an image to be
25 formed, said discrimination means changes the second
image forming condition depending on the information
on an amount of usage of the image bearing member

stored in said storing means, and a result of discrimination by said discrimination means.

3. An apparatus according to Claim 2, wherein
5 said discrimination means is means for discriminating a size of a concentrated pixel area and changes the second image forming condition depending on whether the concentrated pixel area is larger or smaller than a predetermined size.

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4. An apparatus according to any one of Claims 1
- 3, wherein the information on an amount of usage of the image bearing member is predetermined threshold information, and said control means changes the second
15 image forming condition when an amount of usage of the image bearing member reaches a predetermined threshold information.

5. An apparatus according to any one of Claims 1
20 - 4, wherein said image forming apparatus further comprises exposure means for exposing the image bearing member under an exposure operation condition on the basis of image information.

25 6. An apparatus according to Claim 5, wherein the exposure operation condition is an exposure time or luminous energy of said exposure means.

7. An apparatus according to any one of Claims 1
- 4, wherein said apparatus includes a charging member
for electrically charging the image bearing member and
5 a developing member for supplying the developer to the
image bearing member, and the image forming condition
comprises a charging condition of the charging member
and a developing condition of the developing member.

10 8. An apparatus according to Claim 7, wherein
the charging condition is a bias voltage applied to
the charging member and the developing condition is a
bias voltage applied to the developing member.

15 9. An apparatus according to any one of Claims 1
- 8, wherein the image bearing member and said storing
means are integrally supported to form a cartridge
which is detachably mountable to the image forming
apparatus.

20 10. An apparatus according to Claim 9, wherein
the cartridge further comprises the charging member or
the developing member.

25 11. A cartridge for being detachably mountable to
an image forming apparatus having a first image
formation mode for forming an image on an image

bearing member by using developer under a first
predetermined image forming condition and a second
image formation mode for forming an image on an image
bearing member by using developer under a second image
5 forming condition which is different from the first
predetermined image forming condition and is set so
that an amount of consumption of developer with
respect to an identical image in the second image
formation mode is smaller than that in the first image
10 formation mode, said cartridge comprising:

the image bearing member, and

storing means for storing information on the
cartridge, said storing means having a first storing
area for storing information on an amount of usage of
15 the image bearing member for changing the second image
forming condition.

12. A cartridge according to any one of Claim 11,
wherein said storing means further has a second
20 storing area for storing the amount of usage of the
image bearing member.

13. A cartridge according to Claim 11 or 12,
wherein the information on the amount of usage of the
25 image bearing member is predetermined threshold
information.

14. A cartridge according to any one of Claims 11
- 13, wherein said image forming apparatus further
comprises exposure means for exposing the image
bearing member and the second image forming condition
5 is an exposure operation condition of said exposure
means.

15. A cartridge according to Claim 14, wherein
the exposure operation condition is an exposure time
10 or luminous energy of said exposure means.

16. An apparatus according to any one of Claims
11 - 13, wherein said apparatus includes a charging
member for electrically charging the image bearing
15 member and a developing member for supplying the
developer to the image bearing member, and the image
forming condition comprises a charging condition of
the charging member and a developing condition of the
developing member.

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17. An apparatus according to Claim 16, wherein
the charging condition is a bias voltage applied to
the charging member and the developing condition is a
bias voltage applied to the developing member.

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18. A storing device to be mounted to a cartridge
for being detachably mountable to an image forming

apparatus including an image bearing member and having
a first image formation mode for forming an image on
an image bearing member by using developer under a
first predetermined image forming condition and a
5 second image formation mode for forming an image on an
image bearing member by using developer under a second
image forming condition which is different from the
first predetermined image forming condition and is set
so that an amount of consumption of developer with
10 respect to an identical image in the second image
formation mode is smaller than that in the first image
formation mode, said storing device having:

a first storing area for storing information
on an amount of usage of the image bearing member for
15 changing the second image forming condition.

19. A device according to any one of Claim 19,
wherein said storing device further has a second
storing area for storing an amount of usage of the
20 image bearing member.

20. A device according to Claim 18 or 19, wherein
the information on the amount of usage of the image
bearing member is predetermined threshold information.
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21. A device according to any one of Claims 18 -
20, wherein said image forming apparatus further

comprises exposure device for exposing the image bearing member and the information with respect to the second image forming condition is information on an exposure operation condition of said exposure device.

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22. A device according to Claim 21, wherein the information on the exposure operation condition is an exposure time or luminous energy of said exposure device.

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23. An apparatus according to any one of Claims 18 - 20, wherein said apparatus includes a charging member for electrically charging the image bearing member and a developing member for supplying the developer to the image bearing member, and the image forming condition comprises a charging condition of the charging member and a developing condition of the developing member.

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24. An apparatus according to Claim 23, wherein the charging condition is a bias voltage applied to the charging member and the developing condition is a bias voltage applied to the developing member.

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25. A storing device to be mounted to a cartridge for being detachably mountable to an image forming apparatus including an image bearing member and having

a first image formation mode for forming an image on
an image bearing member by using developer under a
first predetermined image forming condition and a
second image formation mode for forming an image on an
5 image bearing member by using developer under a second
image forming condition which is different from the
first predetermined image forming condition and are
set so that an amount of consumption of developer with
respect to an identical image in the second image
10 formation mode is smaller than that in the first image
formation mode, said storing device having:

a first storing area for storing information
on an amount of usage of the image bearing member for
changing the second image forming condition,

15 wherein the information for changing the
second image forming condition is information which is
used in the second image formation mode but is not
used in the first image formation mode.

20 26. A device according to any one of Claim 26,
wherein said storing device further has a second
storing area for storing the amount of usage of the
image bearing member.

25 27. A device according to Claim 25 or 26, wherein
the information on an amount of usage of the image
bearing member is predetermined threshold information.

28. A device according to Claim 26 or 27, wherein
said image forming apparatus further comprises
exposure device for exposing the image bearing member
5 and the information with respect to the second image
forming condition is information on an exposure
operation condition of said exposure device.

29. A device according to Claim 28, wherein the
10 information on the exposure operation condition is an
exposure time or luminous energy of said exposure
device.

30. An apparatus according to any one of Claims
15 25 - 27, wherein said apparatus includes a charging
member for electrically charging the image bearing
member and a developing member for supplying the
developer to the image bearing member, and the image
forming condition comprises a charging condition of
20 the charging member and a developing condition of the
developing member.

31. An apparatus according to Claim 30, wherein
the charging condition is a bias voltage applied to
25 the charging member and the developing condition is a
bias voltage applied to the developing member.